(1) Publication number:

0 048 328 A3

(12)

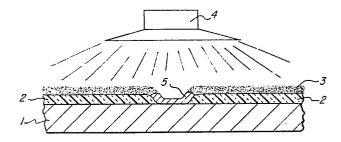
EUROPEAN PATENT APPLICATION

- 21 Application number: 81106001.1
- 22 Date of filing: 30.07.81

(5) Int. Cl.³: **H 01 L 21/60**, **H 01 L 21/00**, **H 01 L 21/31**

30 Priority: 22.09.80 US 189495

- Applicant: TEXAS INSTRUMENTS INCORPORATED, 13500 North Central Expressway, Dallas Texas 75265 (US)
- (3) Date of publication of application: 31.03.82 Bulletin 82/13
- Inventor: Schulte, Eric F., 909 Warren Way, Richardson Texas (US)
 Inventor: Porter, Vernon R., 450 N. Maxwell Creek Road, Plano Texas (US)
- Ø Designated Contracting States: DE FR GB IT
- Representative: Leiser, Gottfried, Dipl.-Ing. et al, Patentanwälte Prinz, Bunke & Partner Ernsberger Strasse 19, D-8000 München 60 (DE)
- 88 Date of deferred publication of search report: 25.04.84 Bulletin 84/17
- 54 Sublimation patterning process.
- A method for patterning layers of material on a substrate without photoresist by using a selective sublimation process. A substrate (1) having a high thermal conductivity has a patterned layer (2) of a material having a low thermal conductivity deposited on its surface. A layer of high thermal conductivity patterning material (3, 5) is then deposited over the entire surface of the structure. A radiated energy source (4) is focused on the structure for sufficient time to allow the patterning material (3) above the low thermal conductivity material (2) to build up the internal heat level for sublimation. The patterning material (5) over the high thermal conductivity substrate (1) does not build up enough internal heat for sublimation and remains intact.



8



EUROPEAN SEARCH REPORT

0048328

EP 81 10 6001

DOCUMENTS CONSIDERED TO BE RELEVANT					
Category	Citation of document with indication, where appropriate, of relevant passages			Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
A	US-A-3 855 928 (L.C. KINNEY et al.) * Abstract *			1,2,9, 10	H 01 L 21/60 H 01 L 21/00 H 01 L 21/33
A	US-A-3 560 258 * Abstract *	(A.D. BRISBA		1,2,9, 10	
A	IBM TECHNICAL DISCLOSURE BULLETIN, vol. 16, no. 2, July 1973, pages 498-499, Armonk, US R.J. VON GUTFELD: "Layered structure for decreasing laser energy for beam-addressable memory" * Lines 11-8 from the bottom *			1,2,9, 10	
A	IBM TECHNICAL DISCLOSURE BULLETIN, vol. 14, no. 11, April 1972, pages 3478-3479, Armonk, US R.J. VON GUTFELD: "Stretching the duration of thermal pulses for laser beam writing" * Second par- agraph on page 3478 *		prilk, g the s for	1,2,9, 10	TECHNICAL FIELDS SEARCHED (Int. Cl. 3) B 23 K B 41 M H 01 L
Α	IBM TECHNICAL DISCLOSURE BULLETIN, vol. 14, no. 10, March 1972, page 2855, Armonk, US J.F. FUGARDI: "Thick-film print- ing with a laser" * Whole article *		arch rint-	1,2,9, 10	
				3	
	The present search report has be	oeen drawn up for all claims			
Place of search Date of complet THE HAGUE 12-01				MIELK	Examiner E W
Y: pa	CATEGORY OF CITED DOCL articularly relevant if taken alone articularly relevant if combined w ocument of the same category echnological background	E vith another D	: theory or prin : earlier patent after the filing : document cit	document, date ed in the ap	lying the invention but published on, or plication reasons

&: member of the same patent family, corresponding document

EPO Form 1503, 03.82

A: technological background
O: non-written disclosure
P: intermediate document